

























D. Regression of spur length against age\* and distance to mainland (measured by longitude)

\* a mean value of 5.6 was used for the age "5.15-6.11" for Los Carrizales

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.619 <sup>a</sup>	.383	.379	1.91996

<sup>a</sup>. Predictors: (Constant), longitude, age (mya)

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	726.294	2	363.147	98.514	.000 <sup>b</sup>
	Residual	1172.224	318	3.686		
	Total	1898.518	320			

<sup>a</sup>. Dependent Variable: spur length of third flower

<sup>b</sup>. Predictors: (Constant), longitude, age (mya)

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	39.671	5.571		7.120	.000		
	age (mya)	.056	.051	.114	1.098	.273	.179	5.584
	longitude	1.562	.317	.513	4.927	.000	.179	5.584

<sup>a</sup>. Dependent Variable: spur length of third flower

E. Regression of spur length against age\*

\* a mean value of 5.6 was used for the age "5.15-6.11" for Los Carrizales

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.599 <sup>a</sup>	.359	.357	1.99377

<sup>a</sup>. Predictors: (Constant), age (mya)

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	748.644	1	748.644	188.333	.000 <sup>b</sup>
	Residual	1335.635	336	3.975		
	Total	2084.279	337			

<sup>a</sup>. Dependent Variable: spur length of third flower

<sup>b</sup>. Predictors: (Constant), age (mya)

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.133	.173		70.205	.000
	age (mya)	.291	.021	.599	13.723	.000

<sup>a</sup>. Dependent Variable: spur length of third flower

F. Regression of spur length against distance to mainland (measured by longitude)

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.617 <sup>a</sup>	.380	.378	1.92058

a. Predictors: (Constant), longitude

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	721.851	1	721.851	195.697	.000 <sup>b</sup>
	Residual	1176.667	319	3.689		
	Total	1898.518	320			

a. Dependent Variable: spur length of third flower

b. Predictors: (Constant), longitude

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	45.273	2.239		20.216	.000
	longitude	1.878	.134	.617	13.989	.000

a. Dependent Variable: spur length of third flower

Table A7. Overview of statistical analyses.

Species	Name on terminal	nrITS	matK
<i>Bonatea antennifera</i> Rolfe	Bonatea_antennifera	DQ522049	DQ522081
<i>Bonatea boltonii</i> (Harv.) Bolus	Bonatea_boltonii	DQ522056	DQ522083
<i>Bonatea bracteata</i> G.McDonald & McMurtry	Bonatea_bracteata	DQ522057	DQ522084
<i>Bonatea cassidea</i> Sond.	Bonatea_cassidea	DQ522059	DQ522085
<i>Bonatea lamprophylla</i> J.Stewart	Bonatea_lamprophylla	DQ522060	DQ522086
<i>Bonatea polypodantha</i> (Rchb.f.) L.Bolus	Bonatea_polypodantha	DQ522063	DQ522087
<i>Bonatea porrecta</i> (Bolus) Summerh.	Bonatea_porrecta	DQ522064	DQ522088
<i>Bonatea pulchella</i> Summerh.	Bonatea_pulchella	DQ522065	DQ522089
<i>Bonatea saundersioides</i> (Kraenzl. & Schltr.) Cortesi	Bonatea_saundersioides	DQ522067	DQ522090
<i>Bonatea speciosa</i> (L.f.) Willd.	Bonatea_speciosa	DQ522070	DQ522091
<i>Bonatea steudneri</i> (Rchb.f.) T.Durand & Schinz	Bonatea_steudneri	DQ522072	-
<i>Cynorkis compacta</i> Rchb.f.	Cynorkis_compacta	AF348019	-
<i>Cynorkis fastigiata</i> Thouars	Cynorkis_fastigiata	MF349073	MF350008
<i>Cynorkis galeata</i> Rchb.f.	Cynorkis_galeata	AJ000135	-
<i>Cynorkis uniflora</i> Lindl.	Cynorkis_grandiflora	EF079186	EF065584
<i>Disa uniflora</i> P.J.Bergius	Disa_uniflora	DQ414864	DQ415007
<i>Gennaria diphylla</i> (Link) Parl.	Gennaria_diphylla	AY351380	AY368383
<i>Habenaria achalensis</i> Kraenzl.	Habenaria_achalensis	HM777526	HM777792
<i>Habenaria aitchisonii</i> Rchb.f.	Habenaria_aitchisonii	MF944279	MF945534
<i>Habenaria alata</i> Hook.	Habenaria_alata	-	HF560586
<i>Habenaria alpestris</i> Cogn.	Habenaria_aff_melanopoda	HM777681	HM777892
<i>Habenaria alpestris</i> Cogn.	Habenaria_alpestris	HM777655	HM777952
<i>Habenaria alpestris</i> Cogn.	Habenaria_melanopoda	HM777687	HM777889
<i>Habenaria amambayensis</i> Schltr.	Habenaria_amambayensis	-	HM777825
<i>Habenaria anisitsii</i> Kraenzl.	Habenaria_anisitsii	HM777668	HM777920
<i>Habenaria anomaliflora</i> Kurzweil & Chantanaorr.	Habenaria_anomaliflora	MF944282	MF945529
<i>Habenaria araneiflora</i> Barb.Rodr.	Habenaria_araneiflora	HM777527	HM777795
<i>Habenaria aranifera</i> Lindl.	Habenaria_aranifera	HM777626	HM777819
<i>Habenaria arenaria</i> Lindl.	Habenaria_arenaria	DQ522073	DQ522092
<i>Habenaria arenaria</i> Lindl.	Habenaria_arenaria_HBL_sn	MK413691	MK413696
<i>Habenaria arietina</i> Hook.f.	Habenaria_arietina	MF944283	MF945541
<i>Habenaria armata</i> Rchb.f.	Habenaria_armata	HM777677	HM777931
<i>Habenaria ayangannensis</i> Renz	Habenaria_ayangannensis	HM777706	HM777934
<i>Habenaria bahiensis</i> Schltr.	Habenaria_bahiensis	HM777562	HM777808
<i>Habenaria balansae</i> Cogn.	Habenaria_balansae	HM777682	HM777884
<i>Habenaria balfouriana</i> Schltr.	Habenaria_balfouriana	MF944285	KY055542
<i>Habenaria batesii</i> la Croix	Habenaria_batesii	-	HF560588
<i>Habenaria bicornis</i> Lindl.	Habenaria_bicornis	KF998087	KF998088
<i>Habenaria brachydactyla</i> J.A.N.Bat. & Bianch.	Habenaria_brachydactyla	KX784176	-
<i>Habenaria brachyphyton</i> Schltr. ex Mansf.	Habenaria_brachyphyton	HM777557	HM777797
<i>Habenaria bractescens</i> Lindl.	Habenaria_bractescens	HM777615	HM777839
<i>Habenaria brevidens</i> Lindl.	Habenaria_brevidens	HM777535	HM777903
<i>Habenaria brevilabiata</i> A.Rich. & Galeotti	Habenaria_brevilabiata	-	HF560589
<i>Habenaria caldensis</i> Kraenzl.	Habenaria_caldensis	HM777646	HM777882
<i>Habenaria calicis</i> R.González	Habenaria_calicis	-	HF560590
<i>Habenaria campylogyna</i> J.A.N.Bat. & Bianch.	Habenaria_humilis	HM777581	HM777879
<i>Habenaria canastrensis</i> J.A.N.Bat. & B.M.Carvalho	Habenaria_aff_canastrensis_Batista_1825	HM777708	HM777940
<i>Habenaria canastrensis</i> J.A.N.Bat. & B.M.Carvalho	Habenaria_canastrensis	HM777726	HM777941
<i>Habenaria cardiostigmatica</i> J.A.N.Bat. & Bianch.	Habenaria_cardiostigmatica	HM777575	HM778018
<i>Habenaria ciliatisepala</i> J.A.N.Bat. & Bianch.	Habenaria_ciliatisepala	HM777567	HM777997
<i>Habenaria ciliolaris</i> Kraenzl.	Habenaria_ciliolaris	MF944286	MF945424
<i>Habenaria ciliolaris</i> Kraenzl.	Habenaria_clavata	DQ522074	DQ522093
<i>Habenaria clypeata</i> Lindl.	Habenaria_clypeata	-	HF560591
<i>Habenaria commelinifolia</i> (Roxb.) Wall. ex Lindl.	Habenaria_commelinifolia	MF944288	MF945456
<i>Habenaria coxipoensis</i> Hoehne	Habenaria_aff_coxipoensis	HM777543	HM777907
<i>Habenaria coxipoensis</i> Hoehne	Habenaria_coxipoensis	HM777536	HM777905
<i>Habenaria crassicornis</i> Lindl.	Habenaria_crassicornis	-	HF560592
<i>Habenaria crassilabia</i> Kraenzl.	Habenaria_chejuensis	KT338765	KF262034
<i>Habenaria crinifera</i> Lindl.	Habenaria_crinifera	JN114584	-
<i>Habenaria crucifera</i> Rchb.f. & Warm.	Habenaria_crucifera	HM777574	HM778014
<i>Habenaria crucifera</i> Rchb.f. & Warm.	Habenaria_crucifera_var_brevidactyla	KC257471	KC257476
<i>Habenaria cruciformis</i> Ohwi	Habenaria_cruciformis	KT338717	-
<i>Habenaria cryptophila</i> Barb.Rodr.	Habenaria_cryptophila	HM777582	HM777870
<i>Habenaria culicina</i> Rchb.f. & Warm.	Habenaria_culicina	HM777571	HM778012
<i>Habenaria cultellifolia</i> Barb.Rodr.	Habenaria_cultellifolia	HM777675	HM777923
<i>Habenaria curvilabra</i> Barb.Rodr.	Habenaria_curvilabra	HM777598	HM777859
<i>Habenaria davidii</i> Franch.	Habenaria_davidii	MF944289	MF945536
<i>Habenaria delavayi</i> Finet	Habenaria_delavayi	KM651268	KM651432
<i>Habenaria dentata</i> (Sw.) Schltr.	Habenaria_dentata	KY966605	KY966891
<i>Habenaria depressifolia</i> Hoehne	Habenaria_depressifolia	HM777601	HM777868

<i>Habenaria diphylla</i> (Nimmo) Dalzell	<i>Habenaria_josephi</i>	MF944300	MF945527
<i>Habenaria distans</i> Griseb.	<i>Habenaria_distans</i>	HM777630	HM777871
<i>Habenaria dives</i> Rchb.f.	<i>Habenaria_dives</i>	DQ522075	DQ522095
<i>Habenaria dutrae</i> Schltr.	<i>Habenaria_dutrae</i>	KJ021339	-
<i>Habenaria edwallii</i> Cogn.	<i>Habenaria_aff_edwallii</i>	HM777553	HM777807
<i>Habenaria edwallii</i> Cogn.	<i>Habenaria_edwallii</i>	HM777564	HM777803
<i>Habenaria eglariana</i> J.A.N.Bat. & Bianch.	<i>Habenaria_eglariana</i>	HM777695	HM777962
<i>Habenaria ekmaniana</i> Kraenzl.	<i>Habenaria_ekmaniana</i>	KJ021340	-
<i>Habenaria espinhacensis</i> J.A.N.Bat. & A.A.Vale	<i>Habenaria_espinhacensis</i>	KT831442	HF560594
<i>Habenaria exaltata</i> Barb.Rodr.	<i>Habenaria_exaltata</i>	HM777621	HM777829
<i>Habenaria fargesii</i> Finet	<i>Habenaria_fargesii</i>	MF944292	MF945407
<i>Habenaria filifera</i> S.Watson	<i>Habenaria_aff_filifera_GS2012</i>	-	HF560595
<i>Habenaria finetiana</i> Schltr.	<i>Habenaria_finetiana</i>	MF944293	MF945413
<i>Habenaria floribunda</i> Lindl.	<i>Habenaria_cf_odontopetala</i>	HM777591	HM777867
<i>Habenaria fluminensis</i> Hoehne	<i>Habenaria_fluminensis</i>	HM777659	HM777945
<i>Habenaria foliosa</i> A.Rich.	<i>Habenaria_foliosa</i>	JN114529	JN004457
<i>Habenaria fordii</i> Rolfe	<i>Habenaria_fordii</i>	MF944295	MF945431
<i>Habenaria furcifera</i> Lindl.	<i>Habenaria_furcifera</i>	MF944296	MF945473
<i>Habenaria glaucifolia</i> Bureau & Franch.	<i>Habenaria_glaucifolia</i>	MF944297	MF945528
<i>Habenaria glazioviana</i> Kraenzl. ex Cogn.	<i>Habenaria_glazioviana</i>	HM777545	HM777849
<i>Habenaria gonzaleztamayoi</i> García-Cruz, R.Jiménez & L.Sánchez	<i>Habenaria_gonzaleztamayoi</i>	-	HF560597
<i>Habenaria gourlieana</i> Gillies ex Lindl.	<i>Habenaria_gourlieana</i>	HM777612	HM777844
<i>Habenaria goyazensis</i> Cogn.	<i>Habenaria_goyazensis</i>	-	HM777895
<i>Habenaria grandifloriformis</i> Blatt. & McCann	<i>Habenaria_grandifloriformis</i>	JN114542	JN004463
<i>Habenaria guadalajarana</i> S.Watson	<i>Habenaria_aff_guadalajarana_GS2012</i>	-	HF560599
<i>Habenaria guadalajarana</i> S.Watson	<i>Habenaria_guadalajarana</i>	-	HF560598
<i>Habenaria guilleminii</i> Rchb.f.	<i>Habenaria_aff_guilleminii</i>	HM777541	HM777899
<i>Habenaria guilleminii</i> Rchb.f.	<i>Habenaria_guilleminii</i>	HM777539	HM777900
<i>Habenaria gustavo-edwallii</i> Hoehne	<i>Habenaria_gustavoedwallii</i>	HM777529	HM777793
<i>Habenaria hamata</i> Barb.Rodr.	<i>Habenaria_hamata</i>	HM777586	HM777865
<i>Habenaria henscheniana</i> Barb.Rodr.	<i>Habenaria_henscheniana</i>	HM777622	HM777827
<i>Habenaria heptadactyla</i> Rchb.f.	<i>Habenaria_heptadactyla</i>	HM777653	HM777956
<i>Habenaria heringeri</i> Pabst	<i>Habenaria_heringeri</i>	HM777602	HM777915
<i>Habenaria hexaptera</i> Lindl.	<i>Habenaria_hexaptera</i>	HM777538	HM777909
<i>Habenaria heyneana</i> Lindl.	<i>Habenaria_heyneana</i>	JN114543	JN004464
<i>Habenaria hieronymi</i> Kraenzl.	<i>Habenaria_hieronymi</i>	HM777524	HM777924
<i>Habenaria hippocrepica</i> J.A.N.Bat. & Bianch.	<i>Habenaria_hippocrepica</i>	HM777698	HM777946
<i>Habenaria ibarrae</i> R.González	<i>Habenaria_ibarrae</i>	-	HF560600
<i>Habenaria imbricata</i> Lindl.	<i>Habenaria_aff_imbricata</i>	HM777678	HM777928
<i>Habenaria imbricata</i> Lindl.	<i>Habenaria_imbricata</i>	HM777650	HM777927
<i>Habenaria imbricata</i> Lindl.	<i>Habenaria_imbricata</i>	-	HM777926
<i>Habenaria intermedia</i> D.Don	<i>Habenaria_intermedia</i>	JN114554	JN004474
<i>Habenaria itaculumia</i> Garay	<i>Habenaria_itaculumia</i>	HM777723	HM777976
<i>Habenaria itatiayae</i> Schltr.	<i>Habenaria_itatiayae</i>	HM777663	HM777894
<i>Habenaria jaguarihyvae</i> Kraenzl.	<i>Habenaria_jaguarihyvae</i>	HM777669	HM777919
<i>Habenaria johannensis</i> Barb.Rodr.	<i>Habenaria_johannensis</i>	HM777609	HM777841
<i>Habenaria josephensis</i> Barb.Rodr.	<i>Habenaria_josephensis</i>	HM777596	HM777854
<i>Habenaria juruenensis</i> Hoehne	<i>Habenaria_juruenensis</i>	HM777531	HM777897
<i>Habenaria keniensis</i> Summerrh.	<i>Habenaria_keniensis</i>	KX673554	-
<i>Habenaria kleinii</i> Menini & J.A.N.Bat.	<i>Habenaria_kleinii</i>	KC257469	KC257477
<i>Habenaria laevigata</i> Lindl.	<i>Habenaria_laevigata</i>	DQ522076	DQ522096
<i>Habenaria lavrensis</i> Hoehne	<i>Habenaria_lavrensis</i>	HM777710	HM777938
<i>Habenaria leprieurii</i> Rchb.f.	<i>Habenaria_aff_leprieurii</i>	HM777547	HM777968
<i>Habenaria leprieurii</i> Rchb.f.	<i>Habenaria_leprieurii</i>	HM777661	HM777950
<i>Habenaria leprieurii</i> Rchb.f.	<i>Habenaria_schwackei</i>	HM777657	HM777953
<i>Habenaria leptoceras</i> Hook.	<i>Habenaria_leptoceras</i>	HM777597	HM777855
<i>Habenaria leptoloba</i> Benth.	<i>Habenaria_leptoloba</i>	KY055535	KY055545
<i>Habenaria leucosantha</i> Barb.Rodr.	<i>Habenaria_leucosantha</i>	HM777568	HM777790
<i>Habenaria limprichtii</i> Schltr.	<i>Habenaria_limprichtii</i>	MF944302	MF945411
<i>Habenaria linearifolia</i> Maxim.	<i>Habenaria_linearifolia</i>	KT338719	KF262039
<i>Habenaria linguella</i> Lindl.	<i>Habenaria_acuifera</i>	MF944278	KY055544
<i>Habenaria linguella</i> Lindl.	<i>Habenaria_linguella</i>	MF944303	MF945416
<i>Habenaria lithophila</i> Schltr.	<i>Habenaria_lithophila</i>	DQ522078	DQ522099
<i>Habenaria longicauda</i> Hook.	<i>Habenaria_longicauda</i>	HM777608	HM777843
<i>Habenaria longicorniculata</i> J.Graham	<i>Habenaria_longicorniculata</i>	JN114555	-
<i>Habenaria lucida</i> Wall. ex Lindl.	<i>Habenaria_lucida</i>	MF944304	MF945444
<i>Habenaria ludibundiciliata</i> J.A.N.Bat. & Bianch.	<i>Habenaria_ludibundiciliata</i>	HM777638	HM777806
<i>Habenaria macilenta</i> (Lindl.) Rchb.f.	<i>Habenaria_macilenta</i>	HM777607	HM777812
<i>Habenaria macrandra</i> Lindl.	<i>Habenaria_macrandra_HBL_sn</i>	MK413693	MK413698
<i>Habenaria macroceratitis</i> Willd.	<i>Habenaria_macroceratitis</i>	-	EU214358
<i>Habenaria macronectar</i> (Vell.) Hoehne	<i>Habenaria_macronectar</i>	HM777614	HM777833



<i>Habenaria macvaughiana</i> R.González	<i>Habenaria_macvaughiana</i>	-	HF560602
<i>Habenaria magdalenensis</i> Hoehne	<i>Habenaria_magdalenensis</i>	HM777595	HM777858
<i>Habenaria magniscutata</i> Catling	<i>Habenaria_magniscutata</i>	HM777641	HM777880
<i>Habenaria mairei</i> Schltr.	<i>Habenaria_mairei</i>	MF944305	MF945414
<i>Habenaria malacophylla</i> Rchb.f.	<i>Habenaria_malacophylla</i>	-	KU748358
<i>Habenaria malintana</i> (Blanco) Merr.	<i>Habenaria_malintana</i>	MF944306	MF945530
<i>Habenaria mannii</i> Hook.f.	<i>Habenaria_mannii</i>	-	HF560603
<i>Habenaria marginata</i> Colebr.	<i>Habenaria_marginata</i>	-	MF945503
<i>Habenaria marginata</i> Colebr.	<i>Habenaria_marginata</i>	MF944307	MF945439
<i>Habenaria medioflexa</i> Turrill	<i>Habenaria_medioflexa</i>	MF944308	-
<i>Habenaria medusa</i> Kraenzl.	<i>Habenaria_medusa_HBL_sn</i>	MK413694	MK413699
<i>Habenaria meeana</i> Toscano	<i>Habenaria_aff_meeana</i>	HM777713	HM777989
<i>Habenaria megapotamensis</i> Hoehne	<i>Habenaria_megapotamensis</i>	KJ021345	-
<i>Habenaria mello-barreto</i> Brade & Pabst	<i>Habenaria_mellobarreto</i>	HM777685	HM777886
<i>Habenaria melvillei</i> Ridl.	<i>Habenaria_nabucoi</i>	HM777611	HM777840
<i>Habenaria monorrhiza</i> (Sw.) Rchb.f.	<i>Habenaria_monorrhiza</i>	-	HF560604
<i>Habenaria montevidensis</i> Spreng.	<i>Habenaria_montevidensis</i>	HM777619	HM777826
<i>Habenaria montis-wilhelminae</i> Renz	<i>Habenaria_montiswilhelminae</i>	HM777719	HM777960
<i>Habenaria myriotricha</i> Gagnep.	<i>Habenaria_myriotricha</i>	KY966606	KY966892
<i>Habenaria mystacina</i> Lindl.	<i>Habenaria_mystacina</i>	HM777728	HM777970
<i>Habenaria nasuta</i> Rchb.f. & Warm.	<i>Habenaria_nasuta</i>	HM777716	HM777959
<i>Habenaria nemorosa</i> Barb.Rodr.	<i>Habenaria_nemorosa</i>	HM777634	HM777872
<i>Habenaria nuda</i> Lindl.	<i>Habenaria_aff_nuda</i>	HM777720	HM777958
<i>Habenaria nuda</i> Lindl.	<i>Habenaria_nuda</i>	HM777718	HM777981
<i>Habenaria nuda</i> var. <i>pygmaea</i> Hoehne	<i>Habenaria_nuda_var_pygmaea</i>	HM777651	HM777984
<i>Habenaria orchioalcar</i> Hoehne	<i>Habenaria_orchioalcar</i>	HM777662	HM777914
<i>Habenaria pabstii</i> J.A.N.Bat. & Bianch.	<i>Habenaria_pabstii</i>	HM777666	HM777912
<i>Habenaria pantlingiana</i> Kraenzl.	<i>Habenaria_pantlingiana</i>	MF944309	MF945513
<i>Habenaria paranaensis</i> Barb.Rodr.	<i>Habenaria_paranaensis</i>	HM777528	HM777796
<i>Habenaria parviflora</i> Lindl.	<i>Habenaria_aff_parviflora</i>	-	HM777802
<i>Habenaria parviflora</i> Lindl.	<i>Habenaria_parviflora</i>	HM777561	HM777801
<i>Habenaria paulensis</i> Porsch	<i>Habenaria_paulensis</i>	HM777556	HM777798
<i>Habenaria paulistana</i> J.A.N.Bat. & Bianch.	<i>Habenaria_paulistana</i>	HM777610	HM777838
<i>Habenaria pectinata</i> D.Don	<i>Habenaria_pectinata</i>	MF944310	MF945539
<i>Habenaria pentadactyla</i> Lindl.	<i>Habenaria_pentadactyla</i>	KJ021349	-
<i>Habenaria petalodes</i> Lindl.	<i>Habenaria_petalodes</i>	HM777583	HM777861
<i>Habenaria petelotii</i> Gagnep.	<i>Habenaria_petelotii</i>	MF944311	MF945526
<i>Habenaria petitiiana</i> (A.Rich.) T.Durand & Schinz	<i>Habenaria_petitiiana</i>	KX673555	-
<i>Habenaria piraquarensis</i> Hoehne	<i>Habenaria_cf_piraquarensis</i>	HM777633	HM777877
<i>Habenaria pleiophylla</i> Hoehne & Schltr.	<i>Habenaria_pleiophylla</i>	HM777594	HM777857
<i>Habenaria plurifoliata</i> Tang & F.T.Wang	<i>Habenaria_plurifoliata</i>	MF944312	MF945459
<i>Habenaria praestans</i> Rendle	<i>Habenaria_praestans</i>	DQ522079	DQ522100
<i>Habenaria praetermissa</i> Seidenf.	<i>Habenaria_praetermissa</i>	MF944313	MF945543
<i>Habenaria pratensis</i> (Lindl.) Rchb.f.	<i>Habenaria_pratensis</i>	HM777546	HM777847
<i>Habenaria propinquior</i> Rchb.f.	<i>Habenaria_propinquior</i>	AF348035	-
<i>Habenaria psammophila</i> J.A.N.Bat., Bianch. & B.M.Carvalho	<i>Habenaria_psammophila</i>	HM777550	HM778000
<i>Habenaria pseudoculicina</i> J.A.N.Bat. & B.M.Carvalho	<i>Habenaria_pseudoculicina</i>	HM777707	HM777943
<i>Habenaria pseudoglaucophylla</i> J.A.N.Bat., R.C.Mota & N.Abreu	<i>Habenaria_pseudoglaucophylla</i>	HM777590	HM777852
<i>Habenaria pseudohamata</i> Toscano	<i>Habenaria_pseudohamata</i>	HM777593	HM777856
<i>Habenaria pubidactyla</i> J.A.N.Bat. & Bianch.	<i>Habenaria_pubidactyla</i>	HM777702	HM777972
<i>Habenaria pubidactyla</i> subsp. <i>brasiliensis</i> J.A.N.Bat. & Bianch.	<i>Habenaria_pubidactyla_subsp_brasiliensis</i>	HM777690	HM777974
<i>Habenaria pubidactyla</i> var. <i>apiculatipetala</i> J.A.N.Bat. & Bianch.	<i>Habenaria_pubidactyla_var_apiculatipetala</i>	HM777729	HM777973
<i>Habenaria pungens</i> Cogn. ex Kuntze	<i>Habenaria_pungens</i>	HM777570	HM778011
<i>Habenaria quadriferricola</i> J.A.N.Bat. & B.M.Carvalho	<i>Habenaria_quadriferricola</i>	HM777699	HM777947
<i>Habenaria quinqueseta</i> (Michx.) Eaton	<i>Habenaria_quinqueseta</i>	-	KJ772820
<i>Habenaria reflexa</i> Blume	<i>Habenaria_reflexa</i>	MF944314	MF945537
<i>Habenaria reflexicalcar</i> J.A.N.Bat. & B.M.Carvalho	<i>Habenaria_reflexicalcar</i>	HM777700	HM777948
<i>Habenaria regnellii</i> Cogn.	<i>Habenaria_regnellii</i>	HM777603	HM777830
<i>Habenaria repens</i> Nutt.	<i>Habenaria_aff_repens</i>	HM777624	HM777818
<i>Habenaria repens</i> Nutt.	<i>Habenaria_repens</i>	HM777628	HM777817
<i>Habenaria rhodocheila</i> Hance	<i>Habenaria_rhodocheila</i>	KJ460043	MF945524
<i>Habenaria rhodocheila</i> Hance subsp. <i>rhodocheila</i>	<i>Habenaria_erichmichellii_HBL_sn</i>	MK413692	MK413697
<i>Habenaria rodeiensis</i> Barb.Rodr.	<i>Habenaria_aff_rodeiensis</i>	HM777578	HM777992
<i>Habenaria rodeiensis</i> Barb.Rodr.	<i>Habenaria_rodeiensis</i>	HM777577	HM777995
<i>Habenaria rodriguesii</i> Cogn.	<i>Habenaria_aff_rodriguesii</i>	HM777652	HM777986
<i>Habenaria rolfeana</i> Schltr.	<i>Habenaria_rolfeana</i>	HM777730	HM777978
<i>Habenaria roraimensis</i> Rolfe	<i>Habenaria_roraimensis</i>	HM777676	HM777925
<i>Habenaria rostelifera</i> Rchb.f.	<i>Habenaria_rostellifera</i>	MF944316	MF945542
<i>Habenaria rotundiloba</i> Pabst	<i>Habenaria_rotundiloba</i>	HM777717	HM778017
<i>Habenaria roxburghii</i> Nicolson	<i>Habenaria_roxburghii</i>	JN114574	JN004475
<i>Habenaria rupicola</i> Barb.Rodr.	<i>Habenaria_cf_rupicola</i>	HM777533	HM777911

<i>Habenaria rupicola</i> Barb.Rodr.	<i>Habenaria_rupicola</i>	HM777534	HM777910
<i>Habenaria rzedowskiana</i> R.González	<i>Habenaria_rzedowskiana</i>	-	HF560606
<i>Habenaria schenckii</i> Cogn.	<i>Habenaria_schenckii</i>	HM777580	HM777869
<i>Habenaria secunda</i> Lindl.	<i>Habenaria_secunda</i>	HM777525	HM777791
<i>Habenaria secundiflora</i> Barb.Rodr.	<i>Habenaria_secundiflora</i>	HM777636	HM778005
<i>Habenaria setacea</i> Lindl.	<i>Habenaria_setacea</i>	HM777731	HM777980
<i>Habenaria seticauda</i> Lindl.	<i>Habenaria_seticauda</i>	HM777584	HM777864
<i>Habenaria</i> sp.	<i>Habenaria_sp_10</i>	HM777521	HM777810
<i>Habenaria</i> sp.	<i>Habenaria_sp_10a</i>	HM777520	HM777809
<i>Habenaria</i> sp.	<i>Habenaria_sp_11</i>	HM777551	HM778001
<i>Habenaria</i> sp.	<i>Habenaria_sp_11a</i>	HM777552	HM778002
<i>Habenaria</i> sp.	<i>Habenaria_sp_14</i>	HM777548	HM777999
<i>Habenaria</i> sp.	<i>Habenaria_sp_15</i>	HM777725	HM777967
<i>Habenaria</i> sp.	<i>Habenaria_sp_17</i>	HM777704	HM777990
<i>Habenaria</i> sp.	<i>Habenaria_sp_2</i>	HM777629	HM777878
<i>Habenaria</i> sp.	<i>Habenaria_sp_4</i>	HM777522	HM777846
<i>Habenaria</i> sp.	<i>Habenaria_sp_4</i>	-	HM777845
<i>Habenaria</i> sp.	<i>Habenaria_sp_7</i>	HM777643	HM777932
<i>Habenaria</i> sp.	<i>Habenaria_sp_8</i>	HM777530	HM777904
<i>Habenaria</i> sp.	<i>Habenaria_sp_9</i>	HM777691	HM777939
<i>Habenaria</i> sp.	<i>Habenaria_sp_CPG_29261</i>	MF944319	MF945485
<i>Habenaria</i> sp.	<i>Habenaria_sp_Jin_&amp;_Zhang_13814</i>	KJ460098	KJ452855
<i>Habenaria</i> sp.	<i>Habenaria_sp_Jin_XH_11887</i>	MF944322	MF945538
<i>Habenaria</i> sp.	<i>Habenaria_sp_Raskoti_201443</i>	MF944320	MF945497
<i>Habenaria</i> sp.	<i>Habenaria_sp_SETET_789</i>	MF944317	MF945452
<i>Habenaria</i> sp.	<i>Habenaria_sp_Szlachetko_sn</i>	EU395461	-
<i>Habenaria</i> sp.	<i>Habenaria_sp_TW316</i>	MF944323	MF945546
<i>Habenaria</i> sp.	<i>Habenaria_sp_YNET_1646</i>	MF944318	MF945463
<i>Habenaria</i> sp.	<i>Habenaria_sp_Yu_SX_561</i>	MF944321	MF945523
<i>Habenaria spanophytica</i> J.A.N.Bat. & Bianch.	<i>Habenaria_spanophytica</i>	HM777576	HM778016
<i>Habenaria spathulifera</i> Cogn.	<i>Habenaria_spathulifera</i>	HM777544	HM777851
<i>Habenaria sprucei</i> Cogn.	<i>Habenaria_sprucei</i>	KC257470	KC257479
<i>Habenaria stenopetala</i> Lindl.	<i>Habenaria_stenopetala</i>	JN696451	MF945467
<i>Habenaria strictissima</i> Rchb.f.	<i>Habenaria_strictissima</i>	-	HF560607
<i>Habenaria suaveolens</i> Dalzell	<i>Habenaria_panchganiensis</i>	JN114564	-
<i>Habenaria subauriculata</i> B.L.Rob. & Greenm.	<i>Habenaria_subauriculata</i>	-	HF560608
<i>Habenaria subfiliformis</i> Cogn.	<i>Habenaria_aff_subfiliformis</i>	HM777709	HM778010
<i>Habenaria subfiliformis</i> Cogn.	<i>Habenaria_subfiliformis</i>	HM777573	HM778008
<i>Habenaria subviridis</i> Hoehne & Schltr.	<i>Habenaria_subviridis</i>	HM777679	HM777929
<i>Habenaria tamanduensis</i> Schltr.	<i>Habenaria_tamanduensis</i>	HM777600	HM777993
<i>Habenaria tibetica</i> Schltr.	<i>Habenaria_tibetica</i>	MF944325	MF945531
<i>Habenaria tonkinensis</i> Seidenf.	<i>Habenaria_tonkinensis</i>	MF944326	MF945432
<i>Habenaria tridactylites</i> Lindl.	<i>Habenaria_tridactylites_HBL_sn</i>	MK413695	MK413700
<i>Habenaria tridens</i> Lindl.	<i>Habenaria_tridens</i>	-	DQ522101
<i>Habenaria tridens</i> Lindl.	<i>Habenaria_tridens</i>	DQ522080	DQ522101
<i>Habenaria trifida</i> Kunth	<i>Habenaria_aff_flexuosa_GS2012</i>	-	HF560596
<i>Habenaria trifida</i> Kunth	<i>Habenaria_curtibradei</i>	HM777667	HM777918
<i>Habenaria trifida</i> Kunth in F.W.H.von Humboldt	<i>Habenaria_trifida</i>	HM777671	HM777916
<i>Habenaria uliginosa</i> Rchb.f.	<i>Habenaria_cf_uliginosa</i>	HM777625	HM777824
<i>Habenaria umbraticola</i> Barb.Rodr.	<i>Habenaria_umbraticola</i>	HM777605	HM777874
<i>Habenaria urbaniana</i> Cogn.	<i>Habenaria_urbaniana</i>	HM777658	HM777944
<i>Habenaria warmingii</i> Rchb.f. & Warm.	<i>Habenaria_warmingii</i>	HM777617	HM777820
<i>Habenaria weileriana</i> Schltr.	<i>Habenaria_weileriana</i>	-	HF560609
<i>Habenaria wolongensis</i> K.Y.Lang	<i>Habenaria_wolongensis</i>	MF944328	MF945522
<i>Habenaria yueana</i> Tang & F.T.Wang	<i>Habenaria_yuana</i>	KY055537	KY055543
<i>Habenaria glaucophylla</i> Barb.Rodr.	<i>Habenaria_glaucophylla_var_brevifolia</i>	HM777632	HM777876
<i>Habenaria glaucophylla</i> Barb.Rodr.	<i>Habenaria_glaucophylla_var_glaucophylla</i>	HM777631	HM777875
<i>Habenaria obtusa</i> Lindl.	<i>Habenaria_obtusa</i>	HM777587	HM777862
<i>Orchis mascula</i> (L.) L.	<i>Orchis_masculata</i>	AY351379	JN895683
<i>Orchis militaris</i> L.	<i>Orchis_militaris</i>	AY014548	KF997352
<i>Orchis purpurea</i> Huds.	<i>Orchis_purpurea</i>	AY364882	DQ522103
<i>Pecteilis radiata</i> (Thunb.) Raf.	<i>Habenaria_radiata</i>	KT338720	KF262040
<i>Peristylus densus</i> (Lindl.) Santapau & Kapadia	<i>Habenaria_flagellifera</i>	KT338718	KF262037
<i>Peristylus iyoensis</i> Ohwi	<i>Habenaria_iyoensis</i>	KT338766	KF262038
<i>Peristylus stocksii</i> (Hook.f.) Kraenzl.	<i>Habenaria_stocksii</i>	JN114575	-
<i>Satyrium bicorne</i> (L.) Thunb.	<i>Satyrium_bicorne</i>	AY704978	EF612539
<i>Stenoglottis longifolia</i> Hook.f.	<i>Stenoglottis_longifolia</i>	AF348065	AY368387

Table A8. Genbank accessions and voucher information